

directly with the switch. If the change is performed via an AIN service, and the proper messages are available, then it may be possible to develop an SLP for this service.

## **23. DELIVERY OF THE DIALED NUMBER**

This is the capability to have the BOC switch deliver the actual dialed number to the ESP at the time the call is established, even where some type of number translation is involved. (ESPs require that interim number translations have no effect on the service.)

This would allow the ESP to provide different types of services to clients using the same common attendants/interfaces, by distinguishing on the basis of the number that the client dials to reach the ESP. Additionally, in multiple call forwarding situations, this capability would allow the ESP to obtain the original calling/called number regardless of the number of times the call was forwarded. With this capability, use of DID numbers to identify customers would not be necessary.

A version of this capability may be capable with AIN 0.1 with certain limitations. It also appears that modifications to SS7 ISUP may be a way to provide this service.

## **29. SUPPRESSED RINGING**

Suppressed power ringing would provide connection to line side access customers without applying power ringing (typically 20 Hz). This capability would provide access for meter reading or other information gathering without alerting the line side access customer. A secondary capability of suppressed ringing would allow the originator to barge in on a busy line and establish a very short CPE conversation without bothering or being noticed by parties on the call.

The benefit of this capability is that an ESP could provide a service that involves a dial-up arrangement such as remote meter reading, without ringing the customer's phone (especially useful to avoid waking up clients during the night).

This service could possibly be done with ISDN via User to User Information Parameter (actual service description and CCS7 messaging is yet to be determined).

The secondary capability described above (with barge-in) is outside the scope of currently developed or planned AIN releases. Barge-in is a planned feature that has not been developed.

As previously reported, BellSouth conducted a technical trial of this service and began investigating whether there is demand for this service at a price that customers are willing to pay. Based upon that investigation, further work on this capability has been deferred.

### **39. SELECTED NUMBER REVERSE BILLING RATE PERIOD SPECIFIC**

This appears to be a request for the ability of the ESP to have selected ESP clients' calls billed to it on a rate period specific basis.

This would appear to allow ESPs to pay for any local measured rate charges that might normally accrue to the ESP's client for client access to the ESP.

This service is not possible with the capabilities provided by AIN 0.0 or AIN 0.1. While AIN does not impact how calls are rated, access via AIN to SS7 call set-up messages may meet ESP needs in this area. Further analysis is needed to determine switch, SS7, and billing system capabilities that may be needed to support this request.

### **42. ABILITY TO RETURN HELD CALL TO CUSTOMER**

This request appears to be the ability for the ESP to notify a client who is on an established call, that a call has been forwarded to the ESP and, if necessary, to add that call onto the line that the ESP used to notify the client that there was a call.

This service could possibly be provided with an ESP ISDN Service Node or similar equipment, which could support the handling of a call forwarded to the ESP from the client's busy line. The service node could provide Dual Tone Multi-Frequency (DTMF) call control options to the calling and/or called parties to allow selection of call hold, voice mail, busy signal, or answer. A display phone interface, either ISDN or Analog Display Services Interface (ADSI), to the ESP's client could provide notification of the held call.

The resolution to IILC Issue #030, which recommends use of a combination of complementary network services, may also address this requested capability.

### **44. PROVISION FOR SHARING AN ESP CLIENT AMONG ESPS**

This appears to be a request for a service such as the CLASS feature Selective Call Forwarding but with more than one forward to number available.

An ESP client should be able to use the services of more than one ESP at the same time. For example, calls could be routed to different ESPs as a function of the calling number.

This service could possibly be provided with AIN 0.1, using AIN Toolkit Service, if the necessary service logic program is developed. It would also possibly require a customer profile database that would associate calling numbers to forwarding numbers.

### **50. B-CHANNEL SWITCHED AND DEDICATED ACCESS**

This appears to be two requests: BOC ISDN customers should be able to interconnect their B-channels through the BOC ISDN switch, and BOC ISDN customers should be able to have nail-up connections between their B-channels and an ESP's B-channels.

The ESP requires access to end users over B-channels on both a switched and a non-switched basis. Both switched and non-switched B-channel connections could be available with TR-based ISDN (TR-TSY-000268). Non standard B-channel connections are available in existing switches, but compatible connections between switches are contingent upon deployment of TR-based ISDN.

## **51. D-CHANNEL DATA DELIVERED ON B-CHANNEL**

This appears to be a request for multiple D-channel data streams to be multiplexed on a B-channel with multiplexing via TEI (Terminal End-point Identifier) mapping.

The need is for an efficient method of delivering D-channel data to the ESP.

In the current version of ISDN each B-channel is associated with exactly one D-channel. Whereas a B-channel can be used to transport packets, it is not clear how packets from nonassociated D-channels could be multiplexed into a B-channel. One approach might be to let the user establish a B-channel connection between two user locations and then request that data from different D-channels at one location be multiplexed, via an end office based packet switch, into the established B-channel. At the receiving end office the B-channel would terminate at the local packet switch which would then demultiplex the data into the corresponding D-channels at that user's location. Such an approach would require further evaluation to determine feasibility.

Some ESPs have indicated that an X.75 connection may be an adequate interim solution to their needs. X.75 connections are possible on the trunk side.

Some ESPs have indicated that Frame Relay Service may be an appropriate long term solution to the need for efficient delivery of D-channel data. Frame Relay is tariffed and effective in all nine BellSouth states and in the interstate access tariff.

## **52. MULTIPLE D-CHANNELS ON B-CHANNEL**

This capability would multiplex data packets from a number of different D-channels onto a B-channel. 32 packets per second would be delivered over the B-channel in duplex mode thus allowing 128 logical channels.

The ESP needs this capability to concentrate traffic.

For new technology analysis, see request #51 above.

### **53. ESP ACCESS TO D-CHANNEL SIGNALING**

This is a request to provide non-switched D-channel packet delivery to the ESP.

As a subscription option to the user, an ESP would be given access to signaling packets going between the user and the BOC switch. The ESP might modify these packets. In principle the client's D-channel could be routed directly to the ESP (without going through the D-channel processor in the switch) while a D-channel from the ESP would appear at the client's CO as the client's D-channel. It would be processed by the D-channel processor as if it were the client's original D-channel. This may require substantial modifications of ISDN. Furthermore, it may cause performance problems when the D-channel is used by the client to establish B-channel calls; the client may notice extensive call setup delays due to double processing of D-channel signaling (by the CO and the ESP) and additional routing of D-channel information (from the client's CO to the ESP and back to the client's CO). In addition to the technical difficulties and performance issues this approach also raises serious public policy and security concerns that are beyond the scope of this report. (e.g., what happens if the ESP's version of the client's D-channel signaling is incorrect or inappropriate, what happens if the ESP is overloaded or malfunctions,...)

Some ESPs have indicated that an X.75 connection to an ISDN end office may be an adequate interim solution to their needs. X.75 connections on the trunk side are possible.

Some ESPs have also indicated that a frame relay connection may be an adequate long term solution to their needs. Frame Relay is tariffed and effective in all nine BellSouth states and in the interstate access tariff.

### **54. FEATURE NODE SERVICE INTERFACE (FN/SI)**

This is access to a service provider (previously called VFN -Vendor Feature Node) interface. This requires ESP access to the BOC's Common Channel Signaling system

This question is concerned with the status of FN/SI as a means of providing access to unbundled basic building blocks.

With its AIN development, BellSouth plans to allow third party ESPs to connect their own feature (service) nodes within AIN 0.2 implementation limitations.

## **55. SERVICE CONTROL POINT (SCP) DATA BASES**

This request is for access to an SCP database. This requires access to the BOC Common Channel Signaling network (see "Common Channel Signaling Access").

Access to current SCP databases (such as LIDB) is possible via CCS7 using gateway STPs and TCAP, however, major reliability, security and privacy issues must be resolved before such access is made available as a general service.

## **57. ACCESS TO FUTURE INTELLIGENT FUNCTIONS OF ISDN**

This appears to be a request for access to services offered by the Intelligent Network through ISDN access. AIN is a long term project and its interaction with ISDN customers has not yet been defined.

BellSouth is analyzing various architectures to provide ESP access to the AIN. The issue of providing ESP access to Intelligent Networks is also the subject of an FCC Notice of Inquiry on Intelligent Networks.

## **59. MAPPING ANI TO USER ID (X.75)**

This involves a dialed connection through a voice switch with ANI delivered to the BOC PAD and relayed through the packet switch to the ESP. This requires an ANI trunk to the PAD and a PAD capable of receiving and forwarding ANI.

The ESP wants a BOC-verified identification of the calling party.

This service is not possible with the capabilities provided by AIN 0.0 or AIN 0.1. It appears to require both switch and PAD software development.

## **62. PEAK TRAFFIC HANDLING WITHIN EXCHANGE NETWORK**

This is the real time ability to specify the maximum number of simultaneous calls to be routed to an ESP from a specific client. All additional calls from that particular ESP's client would be blocked by the exchange carrier network. Choking applies to groups of lines and trunks to an ESP location.

ESPs have requested the ability to control the amount of traffic delivered to them from one individual client so that the blocking grade of service to other clients does not suffer.

This service could possibly be provided with AIN 0.1 if the necessary SLP is developed. In this case the AIN Platform must be notified of call arrivals as well as disconnects.

#### **64. COMMON CHANNEL SIGNALING ACCESS**

Interconnection to the BOCs' CCS system. This appears to be a request to allow an ESP to have its own CCS connections to the BOCs' STP.

ESPs have requested improved methods of exchanging signaling and control information.

This is technically feasible via CCSAC service and is described in TR-394.

#### **70. DERIVED CHANNELS COMPATIBLE WITH ISDN**

This could be one of two requests: (1) Current ESP non-switched derived channel arrangements share the loop with ISDN access; (2) Current ESP client non-switched derived channel arrangements are replaced with ISDN access and CPE functions without modification.

ESPs need the ability to forward migrate from derived channel technology to ISDN Basic Access.

Multiplexing non-switched derived channels and ISDN access on the same loop is technically possible; however, the appropriate multiplexers for the CPE and the network must be developed. There are no current plans for specifying the network interface requirements for such multiplexers. Replacing non-switched derived channels with ISDN access is possible; however, non-switched derived channel CPE might have to be replaced with ISDN CPE.

#### **77. ROUTE DIVERSITY**

This is the ability for the ESP to specify a physical route that services take and to specify that some services between the same locations be designed using more than one route.

ESPs want to specify physical route diversity to maintain a certain level of service even after there is damage to one particular facility. This capability is already included in BellSouth's GSST, local Private Line, intrastate access and interstate access tariffs.

BellSouth's CrisisLink<sup>sm</sup> service may also meet the ESPs' needs for this capability. CrisisLink service allows the customer to establish a predetermined alternate routing plan for their incoming voice or data traffic for use during emergency situations. Tariffs for CrisisLink are effective in all nine states. An expanded description of CrisisLink is available in Report #5 of this Annual Report. AIN Toolkit service<sup>12</sup> would provide the capability for an ESP to create their own version of a route diversity service similar to CrisisLink service. AIN Toolkit is approved in the

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<sup>12</sup> AIN Toolkit service was formerly identified as DesignEDGE<sup>sm</sup>.

General Subscriber Service Tariffs for Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, and South Carolina. It is also approved in the intrastate access tariffs for Alabama, Florida, Georgia, Kentucky, Mississippi, and South Carolina. AIN Toolkit is described in Report #5 of this Annual Report.

## **78. AUTOMATIC PROTECTION SWITCHING**

This is the ability to monitor the integrity of a Special Access facility (usually a digital facility) and to automatically switch to a "hot stand-by" transmission system when the performance of the original facility degrades to a critical level.

ESPs have requested facilities that are protected from failure.

This capability is available in the local Private Line, intrastate special access and interstate special access tariffs.

BellSouth's CrisisLink<sup>sm</sup> service may also meet the ESPs' needs. (See analysis of 77 above).

## **91. ENABLE/DISABLE NETWORK DTMF SIGNALING**

This is the ability for the BOC network to respond to a signal received from a customer (ESP or its client) by either interpreting DTMF tones as addressing information, or passively transmitting the tones to/from the subscriber and the ESP.

ESPs would like the ability to have the network passively transmit DTMF tones between ESPs and their clients.

This service could possibly be provided with AIN 0.1 if the necessary SLP is developed. Depending on the state of the call the SLP could decide if the DTMF is destined for the network or for transparent transmission. This feature may limit the client's access to other network services since at some Points In Call, the network will not interpret the client's DTMF. (For example, AIN does not monitor digits throughout the call.) In order to circumscribe this limitation the SLP could apply this feature only when the client is connected to its ESP(s). This would require a customer profile database. In this case customer DTMF may result in different action depending on whether the customer is connected to an ESP or not. Further ESP definition of this service requirement is needed.

## **92. PASSIVE IN-BAND DTMF TONE TRANSMISSION**

This is the ability to transmit DTMF tones over switched or non-switched connection, during any ESP client line status (i.e., on-hook, dialing, ringing, busy, conversation). ESP(s) would like the ability to have the BOC network passively transport DTMF tones between ESP(s) and their client(s).

This is similar to ESP request 91 above except that the client's DTMF tones are always transmitted to the ESP. The SLP still has to determine if and when the network should act upon these tones even though they are transmitted to the ESP. If the network is to ignore all the client's DTMF tones then this client's services could be very much restricted.

## **94. TONE TO DIGITAL TRANSLATION**

This request is for the ability to translate DTMF tones into digital values for transmission to the ESP. ESPs would like to be able to receive information from their clients in a digital form even if the only terminal their client has is a DTMF telephone. This appears to be a request to monitor each call to an ESP, intercepting DTMF transmissions from the caller, converting the DTMF tones to ASCII (or some other protocol representation of characters) and sending the converted signals to the ESP.

ESPs would like to be able to receive information from their clients in a digital form even if the only terminal their client has is a DTMF telephone.

This service could be provided by an ISDN interface and a Service Node. The Service Node would perform the protocol conversion and transmit the digits to the ESP.

## **97. REMOTE ACCESS TO USER PROGRAMMABLE FUNCTIONS (PACKET)**

This is remote access to features and functions, which are user programmable. ESPs want the ability to change:

- routing information
- numbering plans
- class of service designations, and
- authorization codes.

ESP(s) need a quick and cost effective method to change feature, functions and designations associated with their clients.



No packet functions are defined for AIN 0.1. However, if the proper SLP is provided this may possibly be done via an interactive session with prompts by the SLEE. In the future, the use of display telephones should simplify the user interface.

## **98. REMOTE SPEED CALL MENU BUILDER (PACKET)**

This is the ability to access and change the subscriber's speed call menu from a station other than the subscriber's.

ESPs would like the ability to change their client's speed call menus for them. Such remote access would be achieved by entry of the target subscriber's number along with some form of authorization code/password that would establish both the right to access the subscriber's menu as well as the nature of such access (e.g., append only).

See New Technology Analysis for ESP request 97 above.

## **99. SPEED CALL MENU BUILDER (PACKET)**

This is the ability for the subscribers to add, remove or modify entries on their speed call lists.

This capability permits the subscriber to define a speed call (or virtual speed call) menu by adding, removing or modifying entries. In the case of existing Custom Calling-Speed Call service, this capability is implemented by means of special 2-digit commands (e.g., 74 to add/change an entry in Speed Call-8 Service). The analogy in a packet switching environment would be a software module that would be accessed from a terminal or PC through which the subscriber would build a private directory of frequently called numbers that would be organized in one or more levels.

See New Technology Analysis for ESP request 97 above.

## **102. NETWORK CONTROL BY CUSTOMER FROM CUSTOMER PREMISES**

This capability would allow the user to control PVN-like services via a data terminal or similar device. Proposed virtual network arrangements presume Common Channel Signaling for interoffice call set up and remote data base access.

The need is for ESP access to network control systems (e.g., for SDN-like services) via a data terminal or a similar device to allow the ESP to control the virtual network.

This service could be provided via the SCP and the Service Management System (SMS). TR-NWT-000029 deals with the SCP generic requirements for IN/1 while TA-NWT-000365 addresses the SCP/SMS generic interface specifications.

However, some issues must be addressed prior to development, including the impact upon the network of one user's ability to drastically increase the traffic between two points on the network.

#### **105. NAME & ADDRESS OF THE CALLING PARTY**

For customers with published directory information, this capability would transmit the calling party's name and address. This information would be useful to ESPs who would like to provide directions to clients calling in while on the road.

This service could possibly be provided with AIN if the necessary SLP is developed, if the proper database is developed, and if alphanumeric strings could be passed from the SCP to the switch for transmission to the customer. BellSouth's Caller ID - Deluxe service may partially meet this requested capability. Caller ID - Deluxe is tariffed in all nine BellSouth states.

#### **108. PRIVACY (CLASSES OF NON-PUBLISHED SERVICE)**

Subscribers should be offered the ability to designate one of several classes of published or non-published number service. The ESP would like to receive from the network information concerning the calling party as follows:

1. Number is published in directory, listed with directory assistance, and will be provided to called party requesting calling number information.
2. Number is not published in directory, not listed with directory assistance, but will be provided to called party requesting calling number information
3. Number is not published in directory and not listed with directory assistance, and will be provided to called party requesting calling number identification only in the form of a non-dialable identification code assigned to the subscriber by the BOC.
4. Number is not published in directory and not listed with directory assistance, and no information as to the calling number or calling party identification will be provided to the called party. The called party will receive an indication that this information is not being provided.

This service could possibly be provided with AIN if the necessary SLP is developed and the privacy information is made available in a network-accessible database (see 105 above). Another possibility, for further investigation, is to provide this information via a connection to an IP or SN, which provides information exchange with users.

#### **110. USER ID ASSOCIATED WITH CALLING NUMBER AND/OR SERVICE ID CODE**

This is the ability for the network to transmit an authorization code of the client to the ESP rather than a billing number.

This capability would give ESPs a way of identifying those customers who may not like their billing number forwarded to the ESP.

If the clients are on an ESP's PVN or a private network then this service could be offered using account codes as authorization codes.

This service could possibly be provided with AIN 0.2 or later if the SLP and the database are developed. Possibly a limited version could be provided today using AIN 0.1, but would also require the development of the SLP and the databases. In addition, the proper CCS7 message would have to be defined for transporting this information.

Alternatively, the ANSI Q.931 display information element field defined for ISDN might possibly be used to deliver this information to the customer.

## **117. PROGRAMMED DEFAULT CALL FORWARDING**

This capability would operate in the following way. Establish a permanent condition under which the first call to a directory number, if it remains unanswered for more than a predetermined amount of time, is then forwarded to an ESP. After the first call is forwarded, all subsequent calls are forwarded immediately until the forwarding is canceled. All calls encountering a busy condition are also forwarded to the alternate number.

This would provide activation of Call Forwarding - Variable by an extended ringing period. This would provide an improved service over Call Forwarding Busy Line/Don't Answer because it reduces the number of rings before an ESP (Answering Bureau) can handle the forwarded call.

This service is not possible with the capabilities of AIN 0.0 or AIN 0.1. Solution may be possible using AIN coupled with switch based features or with additional development on AIN 0.1. Further clarification of the service request is also needed.

## **118. RESTRICTION OF OUTGOING CALLS (PACKET)**

This is the ability to restrict access to certain telephone numbers from specific connected subscribers.

ESPs want the ability to recognize certain telephone numbers that are restricted from specific subscribers and block access to those numbers.

There are no packet features in AIN 0.0 or 0.1. Packet features are available with ISDN.

## **REPORT #6**

### **EFFORTS IN THE NIIF**

**REPORT ON THE PROGRESS THE INFORMATION INDUSTRY LIAISON  
COMMITTEE HAS MADE TOWARD TECHNICAL AND LONG TERM UNIFORMITY**

**April 15, 2002**

The Commission has required BellSouth to report on the progress the Information Industry Liaison Committee (IILC) has made toward technical and long-term uniformity. As of January 1, 1997, the Network Interconnection Interoperability Forum (NIIF) assumed the functions of the IILC.

The NIIF provides an open forum to encourage the discussion and resolution, on a voluntary basis, of industry-wide issues associated with telecommunications network interconnection and interoperability which involve network architecture, management, testing and operations and facilitates the exchange of information concerning these topics.

The NIIF has two standing committees, one of which is the Network Inter-Operability Committee (NIOC). The NIOC addresses issues related to installation, maintenance, management, and testing guidelines for interconnected telecommunications and signaling networks. The NIOC also facilitates the exchange of information regarding telecommunications network architecture and interconnection, including ONA and/or technical interaction. Functional areas to be addressed by the NIOC include the following:

- Emergency Communications
- Facility Guidelines
- Installation Maintenance Testing Guidelines
- Installation Guidelines
- Maintenance Guidelines
- Maintenance Windows
- Mass Calling
- Network Interaction
- Notification (Maintenance and Trouble)
- Notifications (Traffic Affecting: Network Outages and Changes)
- Open Network Architecture (ONA)
- Security
- Signaling Operational Issues (e.g., SS7)
- Test Line Coordination
- Traffic Management
- Trouble Management

BellSouth is a participant in NIIF and NIOC activities. NIIF and NIOC issue background information is available via the Internet at <http://www.atis.org/atis/clc/NIIF/Niifhom.htm>.

## **REPORT #7**

### **PROGRESS IN PROVIDING BILLING INFORMATION**

## **BILLING AND COLLECTIONS PROGRESS REPORT**

**April 15, 2002**

The Commission requires BellSouth to submit a progress report concerning its provision of Billing Name and Address (BNA), line side Calling Number Identification (CNI) or alternatives, and Call Detail services to Enhanced Service Providers (ESPs). As noted in previous reports, BellSouth offers a variety of billing information services, such as Bulk Calling Line Identification (BCLID), Caller ID (ICLID) and Feature Group D Calling Number Identification options.

BCLID is approved in the General Subscriber Service Tariffs in eight BellSouth states. General Subscriber Service Tariff offerings for Caller ID and Caller ID Deluxe are effective in all nine BellSouth states. The Caller ID deluxe feature allows the subscriber to view the name and number of the calling party, along with the date and time of the call on a separate display unit or integrated set in advance of answering the call.

Automatic Number Identification (ANI) and Call Detail Information are approved in the General Subscriber Service Tariffs for seven states as features of Uniform Access Number for LATA-wide Service.<sup>1</sup>

ANI and BCLID services are effective in the interstate access tariff. Intrastate access tariffs for these services have been filed and approved in all states except North Carolina. BCLID can provide call detail information to an interexchange carrier (IXC) or enhanced service provider (ESP) subscribing to a lineside service. This call detail information will allow an ESP to perform billing functions. Should an IXC or ESP purchase trunkside access service, ANI is available as an optional BSE.

BellSouth's AIN Toolkit Service<sup>2</sup> is expected to provide real-time access to ANI information. AIN Toolkit is described in Report #5 of this ONA Annual Report. AIN Toolkit is approved in the General Subscriber Service Tariffs for Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, and South Carolina. It is also approved in the intrastate access tariffs for Alabama, Florida, Georgia, Kentucky, Mississippi, and South Carolina.<sup>3</sup>

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<sup>1</sup> BellSouth's ability to continue offering this capability as tariffed is impacted by recent North American Numbering Plan Administrator (NANPA) decisions denying BellSouth assignment of the 440, 530, and 930 NXXs in new NPAs. The 440, 530, and 930 NXXs are required to provide BellSouth's Uniform Access Number for LATA-wide Service. As a result of the NANPA ruling and subsequent rulings by State Public Service Commissions supportive of NANPA's position, BellSouth intends to discontinue offering this capability and related features, including the ANI and Call Detail Information options. Name and Number and related Call Detail information will continue to be available via BellSouth's Caller ID services.

<sup>2</sup> AIN Toolkit Service was formerly known as DesignEDGE<sup>SM</sup> service.

<sup>3</sup> BellSouth's ability to offer this capability as planned was impacted by recent NANPA decisions denying BellSouth assignment of the 204 NXX in new NPAs. The 204 NXX was planned for use as a capability in connection with AIN Toolkit Service. As a result of NANPA's decision, all plans associated with use of the 204 NXX in connection with AIN Toolkit have been canceled.



Bill Processing Service (BPS) is a General Subscriber Services Tariff billing and collection service, which allows a customer to send, rated charges to BellSouth to be printed on a separate page of the end user's telephone bill. BPS is available to ESPs, via tariff, in eight BellSouth states.

BellSouth previously reported on its General Subscriber Service Tariff for an N11 local dialing arrangement. N11 Service has been deleted from the General Subscriber Service Tariff in one state and grandfathered in four states. The service remains tariffed in one state, but is only available for commercial use when the code has not been requested by an entity defined by Commission requirements in CC Docket 92-105 for specific uses.

BellSouth's Billing Name and Address for Automatic Number Identification (BNA for ANI) service is effective in the interstate access tariff. BNA for ANI provides for end-user or location provider billing name and address and associated information. This service is available to telecommunications service providers, including ESPs, Interexchange Carriers, and other providers of telecommunications services.

The IILC's<sup>4</sup> resolution for Issue #015, Information and Delivery Mechanisms For ESP Billing, identified information needed by ESPs to bill their customers and the means for obtaining the information. BellSouth has this information available to ESPs. The IILC's resolution for Issue #041, Delivery of Billing Information and Called Number to ESPs Utilizing Non-Access Dialing Plan, identified Uniform Access Number (UAN) service as a means to provide this information. BellSouth's Uniform Access Number for LATA-wide Service provides this capability. As referenced above, Uniform Access Number for LATA-wide Service is approved in the General Subscriber Service Tariffs in seven BellSouth states.<sup>5</sup>

BellSouth will continue to participate in, and support, feasible issues that come before the NIIF.

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<sup>4</sup> As of January 1, 1997, the Network Interconnection Interoperability Forum (NIIF) assumed the functions of the information Industry Liaison Committee (IILC).

<sup>5</sup> BellSouth's ability to continue offering this capability as tariffed will be impacted by recent North American Numbering Plan Administrator (NANPA) decisions denying BellSouth assignment of the 440, 530, and 930 NXXs in new NPAs. The 440, 530, and 930 NXXs are required to provide BellSouth's Uniform Access Number for LATA-wide Service. As a result of the NANPA ruling and subsequent rulings by State Public Service Commissions supportive of NANPA's position, BellSouth intends to discontinue offering this capability and related features.

## **REPORT #8**

### **PROGRESS IN DEVELOPING AND IMPLEMENTING OSS SERVICES**

## **PROVISION OF OSS SERVICES**

**April 15, 2002**

The Commission has required BellSouth to report on its continuing progress in developing and implementing methods for ESPs to access OSS services.

As previously reported, BellSouth continues to seek ways to utilize advanced technologies to provide ESPs with access to new OSS services. An example of this effort is BellSouth's AIN SMS Access Service<sup>1</sup>, which is described on page 4 of this report and in Report #5

OSS services currently available include BellSouth's Administrative Management Service, FlexServ®, Network Usage Information Service, and Electronic Communications. Following is a description of each of these services and plans for new OSS services.

### **A. Administrative Management Service**

Administrative Management Service (AMS) allows ESPs and other customers access to information from selected BOC OSSs. AMS is tariffed and effective in the intrastate access tariffs and General Subscriber Service Tariffs (GSST) for all nine states, and in the interstate access tariff.

Due to Y2K issues associated with systems underlying AMS, BellSouth found it necessary to revise the means by which AMS is provided. BellSouth will continue to offer the functionality, but must do so in a manner that satisfies Y2K compliance needs. As previously reported, BellSouth anticipated that minor tariff and method and procedure modifications might be required. The tariff revisions were completed during 1999.

The features available through AMS include the following:

#### **(1) Trouble Reporting and Status via electronic access to BellSouth's repair systems**

This feature permits the customer to electronically initiate trouble reports on services provided to the customer by the telephone company and subsequently to track the status of those trouble reports. This service addresses the ESP requested capability known as User Initiated Diagnostics (NC#85), which states that ESPs want the ability to provide diagnostics information to the BOC maintenance systems.

#### **(2) Service Order Entry by establishing direct Communications to the serving Business Office**

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<sup>1</sup> AIN SMS Access Service was previously identified as PortEDGE<sup>sm</sup> Service.

With this service, the customer has access to a mechanized interface for use when ordering its local services. This capability is provided in response to ESPs' request for access to Order Entry Systems.

(3) Access to Billing Information and Customer Records Information

This service provides customers an opportunity to review their service records through on-line access in certain of BellSouth's customer service records systems. With such access, ESPs are able to review current and previous month bill amounts. This capability is in response to ESP requests for access to OSS for billing information.

(4) Miscellaneous Messaging to Telco locations

This feature provides customers the capability to send and receive electronic messages to and from the Telephone Company, such as requests and confirmation of service orders by account numbers and for queries and responses.

(5) Product and Service Information

This feature provides current feature availability information about all BellSouth central offices to enhanced service providers from the Product/Services Inventory Management System (P/SIMS) database. P/SIMS allows subscribers to obtain detailed central office information such as: Feature Availability, CLLI codes, switch type, V&H coordinates, network access lines, host information, remote/host relationships, switch locations and equal access information. ESPs thus have available to them on a current basis the same information that is periodically provided in BellSouth's wire center deployment reports.

(6) Service Order Status

This requested capability provides customers the ability to review the status of certain service order implementation activities.

**B. FlexServ® Service**

FlexServ® service is a Customer Network Management (CNM) service that allows ESPs and end users to directly manage and re-configure their voice and data networks. Network reconfiguration provides the capability and flexibility to manage and re-configure dedicated facilities. Features of the current tariff include: Ability to Re-configure Networks (NC#76), ESP Defined Dynamic Routing (NC#63), alarm monitoring, security, and management reports. FlexServ® also provides automatic rerouting of failed circuits in all BellSouth states. Sub-rate digital multiplexing and multi-point digital bridge (analog/digital) management are offered region wide.

Features of the service also include the capability for end-users to dynamically allocate bandwidth (Dynamic Allocation of Transmission - NC#65) on demand and in real time within

the constraints of the bandwidth owned by that end user. FlexServ® service is filed in the interstate access tariff and in the GSST and intrastate access tariffs for all nine states.

**C. Network Usage Information Service**

Network Usage Information Service (NUIS) refers to a set of functions that collect customer specific data and present the information to the customer's premises. During 1995, BellSouth upgraded this service to include traffic reports for single line subscribers' usage and attendant consoles. Tariffs for the upgraded NUIS service are effective in all nine BellSouth states.

NUIS functions include Station Message Detail - Premises (SMD-P), Traffic Data to Premises (TD-P) and Traffic Reports (TR).

**(1) Station Message Detail - Premises (SMD-P)**

NUIS provides the customer its SMD, in near real-time, on a 24-hour basis. With call accounting software located at the customer's premises, the customer can use the call record detail to allocate telecommunications costs and more effectively manage its network. The call detail SMD-P delivers includes: connect time and date, called number, call duration, calling extension, facility used, disconnect time, digits out-pulsed by switch and end of dialing. This capability is available through the General Subscriber Services Tariff.

**(2) Traffic Data - Premises**

Traffic Data - Premises (TD-P), formerly known as Traffic Surveillance (TS), refers to the function that provides on-line traffic data of a customer's NARs, trunk groups, special facilities groups, multi-line hunt groups, and attendant consoles. The following are examples of the data available: local dialed number (LDN) peg count, trunk group usage, incoming peg count, overflow, dial 8 peg count and dial 9 peg count. Customers, using TD-P and CPE software, will be able to monitor the performance of their network services against a specific grade of service and use the data to take corrective action to maintain that grade of service. This capability is available through the General Subscribers Services Tariff.

(3) Traffic Reports (TR)

This service provides traffic reports on customers' specific facilities such as their single lines, NARs, trunk groups, multi-line hunt groups etc. Traffic data is collected and assembled into a report that also contains grade of service information. These reports can be mailed, faxed, or delivered electronically to the customer. Traffic reports allow the customer to maintain a specific grade of service attributed to their network services. This capability is available through the General Subscribers Services Tariff.

**D. Performance and Fault Management Service**

Performance and Fault Management Service (PFMS) is a mechanized presentation system, which allows customers to perform specific surveillance and trouble isolation functions through interfaces to specific BellSouth OSSs. PFMS is the service developed in response to ESPs' requests for Real Time Access to Exchange Network Testing Facilities (NC#67), and Pass Through Diagnostics to User (NC#86).

As indicated in BellSouth's 1993 Report, analysis of technical, cost, and demand factors revealed that the current architecture is not economically feasible in that BellSouth is unable to provision the service at a price that customers are willing to pay using that architecture. However, BellSouth will make PFMS available on a special assembly/individual case basis to any ESP who requests it and it will be provided by way of a general tariff offering if sufficient demand materializes.

**E. BellSouth<sup>®</sup> AIN SMS Access Service**

BellSouth's AIN SMS Access Service will provide ESPs indirect or gateway access to their customers' Advanced Intelligent Network (AIN) service parameters. AIN SMS Access will provide the capability to access BellSouth's AIN in an efficient and flexible manner unaided by BellSouth personnel or the traditional service order process. This service will allow customers to activate, deactivate or modify AIN service subscription information. BellSouth AIN SMS Access Service will interface only with services provided in association with BellSouth's AIN network or AIN service platforms.

BellSouth AIN SMS Access is approved in the General Subscriber Service Tariffs for Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, and South Carolina. It is also approved in the intrastate access tariffs for Alabama, Florida, Georgia, Kentucky, Mississippi, and South Carolina. BellSouth previously reported its plans to file an interstate access tariff, pending FCC approval of a Part 69 waiver. BellSouth has re-evaluated this service and interstate access tariff filing plans have been deferred.

An expanded description of BellSouth AIN SMS Access Service is available in Report #5 of this Annual Report.

**F. Electronic Communications**

Electronic Communications (EC) Gateway Service provides online real-time access to information resident in BellSouth's OSSs. As previously reported, this service provides for both an application-to-application gateway and a mechanized interface through the Customer Presentation Manager (CPM). The application-to-application gateway is offered on an individual customer basis, as this connection requires significant customer participation to complete the gateway. The gateway presently supports Trouble Administration (TA) and an improved Preferred Interexchange Carrier (PIC) connection. BellSouth has added a new Web-based trouble reporting application to this offering. The CPM interface is currently offered under the existing access tariffs for AMS, but due to no demand, BellSouth intends to discontinue offering the TA option.

## **REPORT #9**

### **PROGRESS ON UNIFORM PROVISION OF OSS SERVICES**



## **UNIFORMITY IN PROVISION OF OSS SERVICES**

**April 15, 2002**

The Commission has required BellSouth to report on its progress individually and through the Information Industry Liaison Committee (IILC) and other fora in the uniform provision of OSS services, as well as on its progress in implementing IILC resolutions that have already been adopted. As of January 1, 1997, the Network Interconnection Interoperability Forum (NIIF) assumed the functions of the IILC. As indicated in Report #6, information associated with NIIF issues is available via the Internet.

BellSouth has been actively involved in the T1M1.5 working group committee (under the auspices of the Alliance for Telecommunications Industry Solutions (ATIS) and Telcordia uniformity work efforts. Further, as previously reported, BellSouth has provided direct participation to the T1M1.5 working group committee in developing industry-agreed upon standards for network management interfaces. Information relating to TIMI activities is also available via the Internet.

As previously reported, the T1M1.5 mission is to develop standards and technical reports related to operations, administration, maintenance, and provisioning (OAM&P) architecture, interfaces, and protocols for North American telecommunications networks. Subgroups of the T1M1.5 Committee have been directly involved in developing OSI-based standards for customer network management (CNM) services and protocols. As indicated in earlier reports, BellSouth was instrumental, along with the other members of T1M1.5, in enhancing the ATIS T1.227-1992 and T1.228-1992 (referred to as Trouble Administration - TA) standards. At the last T1M1 February 1995 Closing Plenary, enhanced versions were approved and sent to ANSI for publication as Revised T1.227-1995 and T1.228-1995. Many companies, including BellSouth, have successfully implemented this standard. Information relating to BellSouth's Electronic Communications offering is provided in Report #8 of this Annual ONA Report.

BellSouth was also involved in completion of another standard --- "OAM&P - Information Model and Services for Interfaces Between OSs Across Jurisdictional Boundaries to Support Configuration Management- Customer Account Record Exchange (CARE)." This standard was also approved at the T1M1 February 1995 Closing Plenary and was sent to ANSI for publication. This standard, known as T1.246-1995 will provide customers with, among other things, the service of changing their Preferred Interexchange Carrier (PIC) code. ECIC published implementation guidelines for this interface and the interface is currently in production for multiple companies, including BellSouth. Additionally, this standard was updated, balloted and reissued on December 19, 1997.

Another standard is "OAM&P - Extension to Generic Network Information Model for Interfaces Between Operations Systems and Network Elements to Support Configuration Management - Analog and Narrowband ISDN Customer Service Provisioning." This standard, identified as T1.250-1996, describes the customer service provisioning information model (object model and related OAM&P services) needed to configure analog and narrowband ISDN network service